

WHAT IS CLAIMED IS:

1. Isolated nucleic acid having at least 80% nucleic acid sequence identity to:
 - (a) a nucleotide sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2);
 - (b) a nucleotide sequence encoding the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;
 - 5 (c) a nucleotide sequence encoding an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), with its associated signal peptide; or
 - (d) a nucleotide sequence encoding an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide.
- 10 2. Isolated nucleic acid having at least 80% nucleic acid sequence identity to a nucleotide sequence comprising the nucleotide sequence shown in Figure 1 (SEQ ID NO:1).
- 15 3. Isolated nucleic acid having at least 80% nucleic acid sequence identity to a nucleotide sequence comprising the full-length coding sequence of the nucleotide sequence shown in Figure 1 (SEQ ID NO:1).
4. Isolated nucleic acid having at least 80% nucleic acid sequence identity to the full-length coding sequence of the cDNA deposited under ATCC accession number 203004.
- 20 5. A vector comprising the nucleic acid of Claim 1.
6. The vector of Claim 5 operably linked to control sequences recognized by a host cell transformed with the vector.
- 25 7. A host cell comprising the vector of Claim 5.
8. The host cell of Claim 7, wherein said cell is a CHO cell, an *E. coli* cell, a yeast cell or a Baculovirus infected insect cell.
- 30 9. A process for producing a PRO842 polypeptide comprising culturing the host cell of Claim 7 under conditions suitable for expression of said polypeptide and recovering said polypeptide from the cell culture.
- 35 10. An isolated polypeptide having at least 80% amino acid sequence identity to:
 - (a) an amino acid sequence of the polypeptide shown in Figure 2 (SEQ ID NO:2);
 - (b) an amino acid sequence of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide;
 - (c) an amino acid sequence of an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), with its associated signal peptide; or

(d) an amino acid sequence of an extracellular domain of the polypeptide shown in Figure 2 (SEQ ID NO:2), lacking its associated signal peptide.

11. An isolated polypeptide having at least 80% amino acid sequence identity to an amino acid sequence encoded by the full-length coding sequence of the cDNA deposited under ATCC accession number 5 203004.

12. A chimeric molecule comprising a polypeptide according to Claim 10 fused to a heterologous amino acid sequence.

10 13. The chimeric molecule of Claim 12, wherein said heterologous amino acid sequence is an epitope tag sequence or an Fc region of an immunoglobulin.

14. An antibody which specifically binds to a polypeptide according to Claim 10.

15 15. The antibody of Claim 14, wherein said antibody is a monoclonal antibody, a humanized antibody or a single-chain antibody.

20 16. A composition of matter comprising (a) a polypeptide of Claim 10, (b) an agonist of said polypeptide, (c) an antagonist of said polypeptide, or (d) an antibody that specifically binds to said polypeptide, in combination with a carrier.

17. The composition of matter of Claim 16, wherein said carrier is a pharmaceutically acceptable carrier.

25 18. The composition of matter of Claim 16 which is useful for the treatment of an immune related disease in a mammal.

30 19. The composition of matter of Claim 16, wherein (a), (b), (c) or (d) is capable of (i) increasing the proliferation of T-lymphocytes in a mammal, (ii) inhibiting the proliferation of T-lymphocytes in a mammal, (iii) increasing infiltration of inflammatory cells into a tissue of a mammal, or (iv) decreasing the infiltration of inflammatory cells into a tissue of a mammal.

20. The composition of matter of Claim 16 comprising a therapeutically effective amount of (a), (b), (c) or (d).

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21. An article of manufacture, comprising:
a container;

a label on said container; and

a composition of matter comprising (a) a polypeptide of Claim 10, (b) an agonist of said polypeptide, (c) an antagonist of said polypeptide, or (d) an antibody that specifically binds to said polypeptide, contained within said container, wherein label on said container indicates that said composition of matter can be used for treating an immune related disease.

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22. A method of treating an immune related disorder in a mammal in need thereof comprising administering to said mammal a therapeutically effective amount of (a) a polypeptide of Claim 10, (b) an agonist of said polypeptide, (c) an antagonist of said polypeptide, or (d) an antibody that specifically binds to said polypeptide.

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23. The method of Claim 22, wherein the immune related disorder is systemic lupus erythematosis, rheumatoid arthritis, osteoarthritis, juvenile chronic arthritis, a spondyloarthropathy, systemic sclerosis, an idiopathic inflammatory myopathy, Sjögren's syndrome, systemic vasculitis, sarcoidosis, autoimmune hemolytic anemia, autoimmune thrombocytopenia, thyroiditis, diabetes mellitus, immune-mediated renal disease, a demyelinating disease of the central or peripheral nervous system, idiopathic demyelinating polyneuropathy, Guillain-Barré syndrome, a chronic inflammatory demyelinating polyneuropathy, a hepatobiliary disease, infectious or autoimmune chronic active hepatitis, primary biliary cirrhosis, granulomatous hepatitis, sclerosing cholangitis, inflammatory bowel disease, gluten-sensitive enteropathy, Whipple's disease, an autoimmune or immune-mediated skin disease, a bullous skin disease, erythema multiforme, contact dermatitis, psoriasis, an allergic disease, asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity, urticaria, an immunologic disease of the ovaries, an immunologic disease of the lung, eosinophilic pneumonia, idiopathic pulmonary fibrosis, hypersensitivity pneumonitis, a transplantation associated disease, graft rejection or graft-versus-host-disease.

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24. A method for determining the presence of a PRO842 polypeptide in a sample suspected of containing said polypeptide, said method comprising exposing said sample to an anti-PRO842 antibody and determining binding of said antibody to a component of said sample.

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25. A method of diagnosing an immune related disease in a mammal, said method comprising detecting the level of expression of a gene encoding PRO842 polypeptide (a) in a test sample of tissue cells obtained from the mammal, and (b) in a control sample of known normal tissue cells of the same cell type, wherein a higher or lower level of expression of said gene in the test sample as compared to the control sample is indicative of the presence of an immune related disease in the mammal from which the test tissue cells were obtained.

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26. A method of diagnosing an immune related disease in a mammal, said method comprising (a) contacting an anti-PRO842 antibody with a test sample of tissue cells obtained from said mammal and (b) detecting the formation of a complex between the antibody and the polypeptide in the test sample, wherein

formation of said complex is indicative of the presence of an immune related disease in the mammal from which the test tissue cells were obtained.

27. A method of identifying a compound that inhibits the activity of a PRO842 polypeptide, said method comprising contacting cells which normally respond to said polypeptide with (a) said polypeptide and (b) 5 a candidate compound, and determining the lack responsiveness by said cell to (a).

28. A method of identifying a compound that inhibits the expression of a gene encoding a PRO842 polypeptide, said method comprising contacting cells which normally express said polypeptide with a candidate compound, and determining the lack of expression said gene.

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29. The method of Claim 28, wherein said candidate compound is an antisense nucleic acid.

30. A method of identifying a compound that mimics the activity of a PRO842 polypeptide, said method comprising contacting cells which normally respond to said polypeptide with a candidate compound, and 15 determining the responsiveness by said cell to said candidate compound.

31. A method for detecting the presence of tumor in an mammal, said method comprising comparing the level of expression of any PRO842 polypeptide shown in Table 7 in (a) a test sample of cells taken from said mammal and (b) a control sample of normal cells of the same cell type, wherein a higher level of expression of 20 said PRO842 polypeptide in the test sample as compared to the control sample is indicative of the presence of tumor in said mammal.

32. The method of Claim 31, wherein said tumor is lung tumor, colon tumor, or breast tumor.